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## Policy Group XI - Energy Facility Planning

\* Policies excerpted from the GAPC Section of the CZMP as well as Chapter IX.

## A) **Energy Facilities:**

Required: Will your proposed project or plans...

	rest in the proposed program p
a.	require the facility to be located on the waterfront based on an activity that would benefit unless there are no feasible alternatives exist or there is an overriding public interest and that any substantial environmental impact can be minimized?
	or is this N/A?
b.	(for water-dependent facilities) be located on currently maintained channels or rivers to reduce the need for dredging of new channels or is consistent with Chapter VIII, Dredging policies?
	or is this N/A?
c.	expand upon an existing energy and energy-related facility and be consistent with applicable Federal and State air and water quality standards?
	or is this N/A?
d.	meet the applicable water quality and effluent limitation standards of the EPA, DHEC (NPDES), and Sections 401 and 402 of the Clean Water Act?
	or is this N/A?
e.	meet applicable State and Federal air pollution standards and controls, as based on the National Clean Air Act?
	or is this N/A?
f.	be consistent with the Priority of Uses of each listed Geographic Areas of Particular Concern (GAPCs) as discussed in the Geographic Areas of Particular Concern (GAPCs) Polices and Priority of Uses document located on the Resources section of the CZC webpage?
	or is this N/A?

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- g. contain utilization of groundwater resources either in the processing or effluent discharge stages of the production process that:
  - 1) meets existing standards and/or management programs of the Department;
  - 2) prevent saltwater intrusion and land subsidence, to the extent feasible;
  - 3) wherever feasible, provide for a natural vegetated area on the site where aquifer recharge or percolation can occur to mitigate the impacts of groundwater withdrawals?

or is this N/A?

h. avoid the filling, dredging and/or drainage of productive fresh, brackish and saltwater wetland areas or demonstrates that no feasible alternative exists or there is an overriding public interest and any substantial environmental damage can be minimized? Explain the feasible alternatives that will be implemented and provide a summary of mitigation details on an attached document.

or is this N/A?

 (for filling, ditching, clearing, or excavation of wetlands) demonstrate mitigation sites or practices to offset the losses of wetlands consistent with DHEC-OCRM Mitigation Guidelines? The types of mitigation include wetland buffers, creation of wetlands, and restoration of existing wetlands, offsite mitigation, and mitigation banking. Provide a summary of mitigation details on an attached document.

or is this N/A?

j. include other activities associated with energy or energy-related production consistent with the Resource policies that govern them?

or is this N/A?

- k. minimize erosion and sedimentation to limit the impacts from direct stormwater discharge into adjacent water bodies and wetlands include in site location, construction and design (whenever feasible):
  - 1) a buffer strip of natural vegetation between the facility and the water & edge;
  - 2) controls for stormwater run-off, soil erosion, and accidental placement of sediments in wetland areas;
  - 3) the use of permeable surfaces in parking lots and bulk storage areas to provide water recharge areas and minimize the effects of stormwater run-off;
  - 4) retainment of open space or natural (undisturbed) areas around sites as buffer zones and recharge areas?

or is this N/A?

1. meet applicable flood management and construction requirements as required by the Federal Flood Insurance Program if the facility is located inside a flood prone area?

or is this N/A?

m. provide for buffer areas and protect salt, brackish and freshwater wetlands, which help absorb flood water surges if the facility is located in a flood prone area?

or is this N/A?

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n. take into account an evaluation of forecasted need for the facility (for electric generating facilities) and alternative means of meeting the energy demands, whenever feasible?

or is this N/A?

o. demonstrate (for all energy or energy-related facility applications) the following considerations of available alternative sites must take into account the extent and severity of environmental disruption at various sites; short and long-range economic and social impacts on the community for various sites; and the comparison of the degree to which the proposal could be modified at different sites if necessary to more fully meet environmental standards?

or is this N/A?

p. demonstrate the extent and significance of negative impacts (in the review of energy and energy-related facilities, including oil refineries and petrochemical facilities) on the quantity or quality of these valuable coastal resources: unique natural areas; endangered wildlife or vegetation or significant marine species (as identified in the Living Marine Resources segment); degradation of existing water quality in the area; public recreational lands; interruption of existing public access; historic or archeological resources?

or is this N/A?

q. demonstrate the preference of placing cables, pipelines, and transmission lines in non-wetland areas to minimize adverse environmental impacts?

or is this N/A?

- r. take into account the policy requirements for the installation of cables, pipelines, and transmission lines? In this regard, do the plans:
  - 1) avoid the creation of permanent open water canals to install pipelines;
  - 2) limit dimensions of excavated canals for cables and pipelines;
  - propose to restore (backfill with excavated material) all excavations in wetland areas to original marsh elevation;
  - 4) employ appropriate erosion control measures during the crossing of wetland areas;
  - 5) utilize existing rights-of-way and topographic features for new alignments, wherever possible;
  - 6) consider revegetation with suitable wetland species and silt curtains for all excavations?

or is this N/A?

s. avoid offshore munition areas, chemical and waste disposal areas, and geological faults, as determined significant by authoritative sources, and wherever possible shall avoid heavily used waterways and significant and productive fish and shellfish habitats?

or is this N/A?

t. follow existing roadways and railways and be attached to bridges and crossovers where applicable, especially in wetland areas, to prevent unnecessary alteration or disruption of adjacent wetlands or waterways?

or is this N/A?

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u. (for nuclear power plants or liquefied natural gas (LNG) facilities) be located out of hazardous areas such as geological faults or flood prone areas as determined significant by authoritative sources?

or is this N/A?

v. (for nuclear power plants or liquefied natural gas (LNG) facilities) be located out of areas of significant population, except where no feasible alternative exists or an overriding public need can be demonstrated? Explain the feasible alternatives that will be implemented in the summary section below.

or is this N/A?

w. (for nuclear power plants) include plans for temporary and permanent disposal of all types of nuclear waste which will be associated with a proposed nuclear power plant in determining the overall safety and environmental impacts of the nuclear power plant?

or is this N/A?

x. consider transportation patterns associated with proposed liquefied natural gas facilities in determining the overall safety and environmental impacts of the LNG facility including converted gas moved by pipelines unless no other feasible alternatives are available?

or is this N/A?

Recommended policies to consider in designing energy facilities:

- a) The location of new energy and energy-related facilities is generally preferred in already developed areas which are capable of accommodating additional development without significant expenditure of public funds for infrastructure or in areas which the local government and OCRM deem to be both environmentally and economically compatible with the type of energy development proposed. Thus, onshore development is preferred where adverse physical, economic, and institutional impacts will be less than those which are likely to be experienced in less developed areas such as those which are more dependent on tourism and the resort industry. (The exception to this siting policy would be the locating of liquefied natural gas (LNG) and nuclear facilities. Specific policies included on the preceding pages shall apply in these two instances.) Care should be taken that proposed new facilities be located, wherever possible, in areas where they will minimize disruption of existing land use of the area.
- b) Renewable sources of energy such as solar, wind, tidal power, geothermal and biomass, including experimental and demonstration projects, will be encouraged to locate in the coastal zone to the extent that they meet all Federal and State air and water quality standards and are consistent with other OCRM policies.
- c) The use of recoverable energy sources such as co-generation (combined industrial production of electricity and heat) is also encouraged.
- d) Upgrading of old generating facilities operated by each energy supplier is preferred to construction of new facilities by that supplier.
- e) Recommendations of the U.S. Department of Energy to encourage the development of small-scale, diversified, dispersed industrial systems are encouraged.
- f) A coordinated effort in consumer, commercial, industrial, governmental and recreational energy conservation and support for the Department of Energy Extension Service Concept is encouraged.

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## Required:

As applicant or agent, having completed all appropriate checklists and having read the applicable polices, I certify that this project is consistent with the South Carolina Coastal Zone Management Program based on the information outlined above and supplemental information attached.

Signature and date